

TECFLOW ULP-Series Reverse Osmosis Membrane Element

Toray membrane sheet • High rejection • Lower energy usage

Introduction:

TECFLOW ULP-series Reverse Osmosis membrane elements are designed to work under ultra low pressure, to reach as high permeate flow and salt rejection as regular low-pressure membrane elements, for desalination of surface water and underground water. This can effectively decrease the cost of relevant facility, such as pump, piping and container. ULP membranes elements are applicable to feed water with fairly low salinity of 2000ppm or under, such as surface water, underground water, tap water and municipal water, and mainly applicable to numerous applications of various scales, such as pure water, boiler water replenishment, food and beverage, pharmaceutical production.

Features

- Membrane element manufactured by Toray membrane sheet made in Japan, with automated fabrication
- High rejection results in excellent water quality
- Low energy usage reduces power consumption and costs
- Durable with good cleanability for long element life

Product Specifications

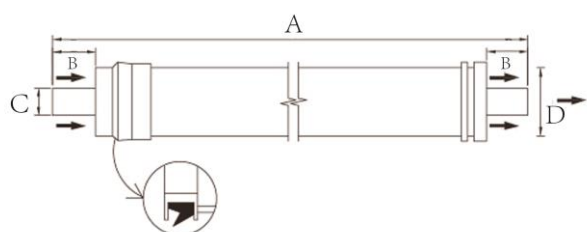
● Model:	TECFLOW ULP-4040	TECFLOW ULP-4021	TECFLOW ULP-2540	TECFLOW ULP-2521
● Effective membrane area:	7.20 m ²	3.30 m ²	2.60 m ²	1.10 m ²
● Stable rejection ratio:	99.5%	99.5%	99.0%	99.0%
● Minimum rejection ratio:	99.0%	99.0%	98.5%	98.5%
● Recovery ratio:	15 %	15 %	15 %	15 %
● Applied pressure:	150psi(1.03Mpa)	150psi(1.03Mpa)	150psi(1.03Mpa)	150psi(1.03Mpa)
● Permeate flow rate:	2700 GPD (10.2m ³ /d)	1000 GPD (3.78m ³ /d)	750 GPD (2.84m ³ /d)	300 GPD (1.13m ³ /d)

Test Conditions

Test pressure	150psi(1.03Mpa)	Test solution concentration (NaCl)	1500ppm
Test solution temperature	25° C	pH Value of testing solution	7.5

Dimensions (mm)

Model	A	B	C	D
ULP-4040	1060	26.7	19.1	99.9
ULP-4021	533	26.7	19.1	99.9
ULP-2540	1060	26.7	19.1	52.5
ULP-2521	533	26.7	19.1	52.5



Operating Limits

● Membrane type	Polyamide thin-film composite membrane
● Maximum operating temperature	45℃
● Maximum operating pressure	600psi (4.14Mpa)
● Maximum pressure drop of single membrane element	15psi (0.1Mpa)
● pH range, continuous operation	2-11
● pH range, short term cleaning	1-12
● Maximum feed SDI	5
● Free Chlorine tolerance	< 0.1 ppm
● Maximum feed flow rate	16GPM (3.6m3 per hour) ---4040 and 4021 6.0GPM((1.4m3 per hour) --2540 and 2521